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THE JOURNAL OF PHILOSOPHY

THE PARADOX OF CAUSE

How quaint the ways of paradox;
At common sense she gaily mocks!

I

THE expulsion of mind and purpose from the domain of nature offers no novelty in the history of thought. But in our own day, determinism and mechanism are no longer esoteric beliefs but generally accepted axioms. To be sure, one often encounters pious affirmations of faith in some supernatural agency, in the soul, or in immortality; but such faith has degenerated into a vague hope, into an attractive but hardly defensible aspiration. Nowadays one needs to apologize for teleology, whereas mechanism no longer labors under the burden of proof. Even psychology openly boasts of its emancipation from the ghost-soul and complacently displays its wares in terms of stimulus-response events, where the whole story wins approbation in the measure that it can be restricted to material and mechanical concepts.

Since the seventeenth century this doctrine has acquired force and persuasion. The achievements of science have given it prestige; the order and regularity which it postulates and describes promise to man the chance of power, of control, and of a unified picture of his world. Apparently we can not rest in meaningless and lawless variety. And, if mechanism thereupon bars us from free participation in the creation of our world and of our fortunes, it seems to offer compensation in the splendid sweep of its intellectual vision.

Mechanism destroys the possibility of freedom. Indeed, where everything is as it must be, nothing can become what it ought to be. Consequently all values in ethics, logic, and esthetics disappear. Weak attempts are often made to save for them, at the very least, the status of pleasant illusions, of useful hypotheses calculated to make living tolerable. One may, of course, wonder how a wholly mechanical world could produce so psychological an event as illusion and error. But apart from that, whoever is smart enough to pierce this veil of subjective deception over the autonomy of values must needs fall back into a pallid stoicism. Consequently there have appeared delicate and emasculated connoisseurs, the apostles

of pity, of taste, and of ego-centric voluptuousness, who make the universal death more horrible and ghastly by pretending that they are alive.

Very frequently those who persist in the hope of freedom scan heaven and earth for evidences of indeterminism. They feel that the failure of universal causation would give room for freedom. They eagerly greet all scientific difficulties which suggest the breakdown of law and the emergence of an indeterminate spontaneity. Even sober scientists hail the alleged vagrancy of the latest atom with a curious mixture of joy and dread. They rejoice as men that the impregnable wall of necessity has been breached; they dread as scientists the collapse of their intellectual axioms, of their cosmic authority, and of their experimental procedure. Natural vagrancy seems to belittle their office as reporters and spectators of an inevitable process, while reinstating them as creative agents. These are bitter alternatives.

But the failure of causal order offers no hope for freedom. Anarchy in nature excludes power, control, or purpose quite as effectively as does necessity. Indeed, it destroys every shred of security, every opportunity for will. Purpose can neither formulate nor execute itself apart from dependable sequences in nature. Where objects and events possess no regular constitution, no definite sequence, the human will gets no intellectual content in terms of which to assert its direction and its program. How shall one proceed to cure headaches if pain occurs for no reason at all? What drug could the physician recommend? Both head and drug would lose their lawful outlines, would, indeed, cease to be recognizable.

Consequently it is very distressing to witness the welcome extended to natural anarchy. By whatever device teleology is to be reinstated it will not be through disorder. And yet, this misdirected hope serves to disclose a lurking discontent over determinism, a discontent usually repressed in polite intellectual discourse, yet ready to show itself timorously upon the slightest suggestion of causal failure.

There is one hope and only one; perhaps we have not understood the character of causal order, perhaps we have a wrong picture of the way in which cause operates and of what makes it possible as a maxim of natural unity.

II

Cause appears to be a principle of order, and hence of unity. It links every event with every other, however indirectly, and every group of events with every other group. Arbitrariness finds no place in nature. There are no island universes and no isolated atoms

discontinuous with their neighbors. Each event has its occasion or condition through some other, in accordance with law. No event remains intelligible in itself, a finite absolute, but appeals to what is beyond it for membership in a single comprehensible system. Such is the picture.

But as a matter of fact, no actual event is explained by invoking a causally governed universe. By way of illustration, suppose one substitutes the word "God" for "cause" in order to understand some actual event. It may then be true that what has occurred is God's deed, his purposed decision; but it is also true that no understanding of the given event can be so obtained. For God, by bringing about everything and anything, might, for all we know, create an altogether different world or event. Just why a given specific fact should occur remains quite unintelligible. Indeed, the well-known outcome of the appeal to divine management is complete resignation to the inscrutable. God spoke to Job out of the whirlwind; "Where wast thou when I laid the foundations of the earth? Declare if thou hast understanding!" The negro preacher put it less elegantly; "You can't unscrew the inscrutable." Ours not to reason why, but to ride blindly and without comprehension into the valley of death, trusting to a beneficent plan withheld from our penetration. And if we can comprehend no part of the plan from its actual details, why do we persist in alleging a plan? It seems intolerably perverse to assert unity where none is found, and where none can be found due to the finitude of our point of view, and the irrelevance of our human values to a cosmic scheme. What is designed to provide the maximum intelligibility yields only the maximum ignorance.

The appeal to universal cause is, however, quite as futile as the appeal to universal purpose, and quite analogous in its complete defeat of unified order. The specific causal conditions of a given event in nature are not clarified by an assertion of universal causal law any more than by a belief in one increasing purpose. In either case, what explains everything explains nothing in particular.

It is the business of science to explain the peculiarities of events. For this reason, and for this reason alone, it employs the technique of experiment, searching out specific conditions or causes. Were some conditions not more relevant than others, science would become impossible, for restrictions would disappear, impossibility and necessity collapse, and the whole of nature reduce to unconnected and lawless pluralism.

Consequently, every truly scientific, empirical, and experimental statement applies only to specific events, or to restricted systems of events. No statement about all events can be scientific, not because

the inductive process can not be completed, but because it can not be begun except in terms of specific properties of objects. Experimentation can operate only upon abstracted aspects of specific objects, never upon the whole world or upon a whole object. We like to think that science is "concrete" because it deals with the sensory and perceptible properties of objects; but in terms of its logical structure it is abstract because its whole experimental procedure is based upon the exclusion of all properties but the one under examination. Causal order is the systematic unification of such abstract sequences.

Accordingly, cause becomes a principle of unity and of understanding only as it grows from a restricted and finite fact. Except from such a restricted fact, *and from the restricted point of view which it implies,* no causal insight can be won. The word "cause" can have meaning only where we find that meaning exemplified. It is exemplified only in the connection of special facts, and only from a point of view which proceeds from special facts. Causes can be found only in terms of the developing process of discovery; and to imagine this process as complete, to overleap the detailed investigations of special facts in order to picture the world as a *fait-accompli,* is to lose all significant causal unity. The point of view which defines causes is relative, restricted, and finite. Causes demand the incomplete. *Causes demand relative disorder.*

Hence the paradox of cause: how can cause be *universal* in its scope, yet *restricted* in its actual incidence? If it is universal in an abstract impersonal way, divorced from the specific, finite, and relative, it explains nothing and reduces to anarchy. If it is not universal, it leaves at least some events outside its scope and again leaves anarchy. If it is restricted to special systems, it loses its cosmic force as unity; if it is not restricted to special systems it makes no sense.

This paradox can be stated in many ways. I will try a few more. Cause pretends to offer us unity and order: but what makes actual causal intelligibility possible is disorder, finitude, restriction; and what makes unity possible is the cancellation of that very disorder, finitude, and restriction. Or again; if cause makes no sense apart from the restricted, what sense does it make when applied to the whole universe of events?

> We've quips and quibbles heard in flocks
> But none to beat this paradox!

III

The moral of this bit of analysis seems quite obvious: causes occur as an aspect of a dynamic teleological process and nowhere

else. They occur in the finding of them; they do not occur in an impersonal and finished world, but only in a world of which the very essence is the adventurous enlargement of a finite point of view. Causal order is one of the basic laws in the development of limited perspectives. For what we know at a given time always bears the marks of the incomplete and forces the exploration of new facts and the formulation of fresh hypotheses. The causal demand controls that process as it concerns natural knowledge. Cause is a dynamic concept because it describes an ideal, the ideal of the intelligibility of nature. For nature is in large part a mystery, and causal coherence is but one of the keys to its progressive solution. If we attempt to make this rule of process a character of a supposedly finished world, we can no longer define the rule.

Consequently we are in a position to reconcile the paradox of cause. Cause must be a principle universally valid, and at the same time applicable only to finite and specific actuality. It must express a character of the whole of nature, but it must view that whole only as the ideal completion of a relative point of view through which actual and specific facts win a detailed and particularized causal ordering. It is a principle regulating the forward sweep of thought from a center to its periphery. Every specific event or object, blind and incomprehensible when isolated, demands a search for those conditions through which it may be controlled and even identified. Indeed, it is through their relations, including causal relations, that finite objects are defined. Consequently, the dynamic property of the causal law is a necessary feature of the very restriction to specific facts without which no actual cause can be denoted. Nothing limited is static. The reason why every event has a cause is found in this intellectual imperfection of everything finite, requiring an ever-developing logic for its integrity and preservation. The way to refute the necessity of universal causation is to demonstrate the possibility of static meanings, i.e., to show a world which is not an order and not governed by law.

And so, it seems that, far from being inconsistent with teleology, cause presumes it. It is defined only in an ideal context. Its locus is the finite world where attention to specific facts demands scrutiny of their connections. And this marching logic defines precisely our own human condition. There is no other world, and certainly no other causally ordered world. In a word, the universality of cause does not imply mechanism; indeed it is just the *necessity of cause which is the ground of the refutation of mechanism.* For the standpoint which alone can define and justify causation is an actual process, organic, spiritual, and teleological. Within that movement causal order is an essential feature. Universal causation is the refutation of mechanism.

Very reputable philosophers, whom it would seem disrespectful to name, have attempted to circumvent the ultimacy of cause by imagining a teleological agency externally directing the course of nature. They call attention to the marvels of the world, they consider why the world is as it is rather than some other way, and they suggest that a purpose or design may be necessary to account for it. This would be a proper effort were it possible to display an impersonal causal order as an accomplished fact upon which to base the inference to purpose. Indeed, it is the assumption of this absolutely objective causal region that underlies the many attempts to reinstate purpose as a more basic agency. But this assumption is false, and the inferences based upon it necessarily futile. To picture a causal world apart from teleology, and then to seek for it a spiritual direction, is to insure defeat if one is logical and magical devices if one is not.

We commonly fail to discriminate between teleology and purpose. The former refers to the ideal tendency through which a world is organized in its fundamental form; the latter denotes the psychological desires which motivate specific deeds. One can explain psychologically why a given scientist seeks out the causes of the weather, and why another deals with the expansion of gases; but there is no psychological explanation for the demand that nature be regular and governed by ideals of order. And because men have observed the irrelevance of cause to psychological purpose they have improperly assumed its irrelevance to an ideal teleological process. This assumption has been a source of great confusion and of many ingenious volumes. It is incorrect to say that the world is governed by impersonal cause; it is also incorrect to say that it is governed by psychological purpose: it is correct to say that it is governed by a law of process, ideal in direction, infinite in potentiality, but always finite in status and in point of view.

It is well to remember that "one can not stand on a platform outside the universe and snipe at it." There is no such absolute point of view. Yet mechanism, while pluming itself on its cold impersonality, and upon its devotion to scientific methods, is nothing more than a rather crude variety of absolutism. It stands on a platform and snipes at the universe. The mechanist is entitled to his causal postulate, but it is the source of his undoing and not of his justification. To assert cause as a property of an absolutely objective and impersonal region is not a dogmatism; it is nonsense.

In sum, the mechanistic doctrine would kill the world and all that move upon it; we are dead men. Some there are who pretend to be alive, even as they admit that life is an illusion and less than a dream. There is no remedy for the resulting lassitude, inertia,

viciousness, and triviality without a revision of premises. One of those premises is the assertion of causal determinism. As a rule the intellectual force of such an axiom seems overpowering, leaving us no recourse save an indefensible faith, or the supposedly fortunate discovery of natural vagrancy. But the paradox of cause sets a problem which offers hope of meeting mechanism on its own ground. For that problem contains a challenge to make good on the idea of intelligible cause viewed as the law of an impersonal objective and finished region. And the above argument urges that it is precisely the intelligence of mechanism which is at fault. There is no such impersonal causal region. All order is process, all process is dynamic, teleological, ideal. That is the order of nature.

A paradox, a paradox,
A most ingenious paradox!

J. W. MILLER.

WILLIAMS COLLEGE.

SOME METAPHYSICAL ASSUMPTIONS AND PROBLEMS OF NEO-POSITIVISM

NEW schools of thought gain vogue primarily by dropping certain traditional difficulties and proceeding with a lighter burden of selected problems. For a time progress is made on the spur of the new unburdened enthusiasm, since intellectual clarification does result from the selection, definite formulation, and analysis of particular problems while others are kept in abeyance. Such is the case with neo-positivism. The older metaphysical issues of the relationship of formal essence to material existence, of necessary to contingent truth, seem to have been discarded in the attempt to clarify the meanings of scientific propositions that happen to be the order of the day, and to rid the field of those propositions that can not be reached or comprehended by operations which happen to be used in establishing the order of the day.

The operational theory of meaning is not merely a reiteration of the scientific method of verification, but it is a theory which limits the class of propositions which we can and can not verify or signify. For we are told not to waste our time on concepts that are not verifiable by a finite set of actually denotable operations.

What is the meaning of operations which make them the ultimate units or atoms of all possible meaning?[1] There is a semi-circular

[1] "These intuitively ultimate operations of our analysis are considered as fixed and identifiable in character, little frozen bits of procedure, so that the 'same' operation may always be performed, whenever required, at whatever time." P. Bridgman, "A Physicist's Second Reaction to Mengenlehre." *Scripta Mathematica*, Vol. II (1934), p. 8.

relationship involved in referring all possible meanings to operations and all possible operations to denotable meanings. Such a relationship is permissible only when operations are metaphysically objective so that operations and the meanings they furnish exhaust all realms of significant discourse and being. Some attempt in this direction is made when operations are specified as physical or spatio-temporal entities. Even mathematics, the science of necessary inference, "has meaning only in so far as it is amenable to the same sort of an operational control that has been found necessary in physics."[2]

Now operations as physical acts could never alter the meanings of propositions or of that which is true or false. They could only aid us to discover what is true or false by orienting our bodies in the right direction. Then operations would show us the sense of propositions only because the latter already have that sense. Let us see whether these assumptions or presuppositions square with the history of science.

The terms of natural science are the contents of universal relational forms assertable in true propositions. These contents become explicated or elaborated in richer detail with each new specific application or discovery. Operations are the means whereby the applications and discoveries are made. Operations do not introduce new types of relational forms unless we pronounce the analysis of relations new when the results are not known prior to inquiry. When the term "mass" became an electro-magnetic variable, the old relationships in which mass figured as a constant did not collapse entirely. They became special instances, valid over a restricted domain of average velocities, of the more general electrodynamic relations. Shall we say that the meaning of mass as a variable is completely different today from its meaning as a constant in Newtonian mechanics? We do have rather different material instruments, observers, and technical operations with which to measure masses today, but these instrumental and operational differences can not account for the formal equivalence of the Newtonian mechanical equations and their status as special cases of the Einsteinian relativity equations. Both the older and the new meanings of mass are real features of the spatio-temporal world. It is only the enlarged context which has produced the change of meaning by way of extension. This is an example of the general principle that the meaning of any term is dependent on the propositions in which it occurs, and the meaning of the latter depend on

[2] *Ibid.*, p. 28. Cf. also: "The fundamental thesis of neo-positivism is that all the sciences form a unity, since propositions in any science can always be translated into the universal language of physics." E. Nagel, this JOURNAL, Vol. XXXI (1933), p. 587.

the systematic analysis of the contexts or situations in which the constituent terms occur.

The actual isolation and analysis of situations constitute the operations of the sciences. The general rules of representing the operations by means of which terms can function significantly in propositions and propositions in systems constitute the field of logic. In so far as the truth of propositions is distinct from their meaning —since false propositions have meaning—logical rules can not prescribe the operations by means of which the truth of propositions is ascertained. Does this mean that logical rules, the rules of syntax, in Wittgenstein's language, can tell us nothing about the world?

In order to achieve the isolation and analysis of specific subject-matter, the sciences are constrained to neglect many general inter-relationships regarded for certain purposes as irrelevant to the matter at hand. But these purposes are historical and relative. When the boundaries of any conventionally isolated system are transcended as in physical or bio-chemistry, biophysics or psycho-physics, fundamental problems arise concerning the elementary assumptions and concepts in terms of which the systems have been isolated. Thus arise philosophies or metaphysical analyses of space, time, quantity, quality, consciousness, and other similar general categories. Results of such analyses, when carried out rigorously with an eye constantly to clarify the inter-relationships of specific systems, do alter the meanings of the basic terms or concepts of such systems. Now when neo-positivists separate the logic of language from the logic of the sciences there is need of metaphysical clarification.

Individual operations are always temporal acts which direct us to the meanings of terms in specific relational contexts. Since no single operation can ever assure us of the certainty of any proposition—there being infinite relational analyses of any term—we can not say that any *single,* individual operation ever verifies the meaning of an assertion or gives us the truth or falsity of a proposition. We beg the old problem of particulars and universals by not indicating the relation between a particular act of verification and the total class of operations which verify a proposition. Weighing by means of scales and spring-balances could never have the same or similar meaning for a physicist if there were no objective relation or variable "mass." Weighing twice on the same instrument at different times could have no definite constant meaning either without assuming some kind of systematic invariance to the property of having mass. The verificational operations which increase the probability of a proposition can do so only if it is possible to arrange the propositions concerning the property being measured in a modality series of truth-values 0 to 1. The actually ascertained prop-

erty would be the limit of a series of successive approximations. This limit is not the last term of the series, since the last operation is not necessarily more accurate than the first. But the limit would be the proposition which gave the rule for generating the series. In the case of weight it would be the solution of the differential equations of gravitation. This solution is a proposition for certain observable values of the s and t coördinates of the gravitational field. Since derivatives above the second degree are neglected in deriving the limit, we can not reach an absolute limit called the weight of an object.

Similar logical considerations apply to mathematical operations. Algebraic equations are soluble by different sets of operations without destroying the unequivocal relationship holding between the values of the unknown variables and the original equations, expressed by saying the roots "satisfy" the equations. Determinants give one set of operations for obtaining the roots. But equations may be solved by other more or less cumbersome operations. All of these operational devices must fall within the formal relations which bind the solution to the original equations.

In geometry, the same relational framework unites diverse sets of operations utilizable for making certain constructions. A circle, for example, may be generated by the operation of moving a line fixed at one end in a plane; or by cutting a sphere with a plane; or by cutting a cone or cylinder with a plane parallel to the base; or by the intersection of two spheres. In all these sets of operations, the relations of congruence between all the points on the circumference of the circle and the point within called the centre must remain the same. This relational invariant limits the range of all possible sets of operations capable of generating the geometrical object.

The class of all possible operations can not be denoted by any finite set of denotable operations. If the possible is not merely a name for our ignorance, it is also the name for the domain of real unknown activities leading to discoverable objects which future science will perform. Neo-positivists who define the class of possible operations by reference to *future* acts of verification can do so only by assigning some metaphysical status to time. The necessity of a temporal distinction in distinguishing operationally actual from possible operations presupposes an absolute assumption about the temporal character of existence and knowledge. This implicit reference to a constant flow of events falls in the class of materially certain and necessary truths. How can this assertion be made compatible with the neo-positivist doctrine that all necessary propositions refer only to the tautologies of discourse and not to events?

The problem of invariants requires for its solution an extension of the logic of relations to include those features of operations which enable them to establish various types of relations. The following are merely suggestions.

With respect to verification in the natural sciences, we should note that the probability of a hypothesis increases not merely with the number of repeated verifying operations, but also with the formal relations of the given hypothesis to a system of propositions known to have a higher probability than the given hypothesis. That is why Duhem claimed that we never verify or interpret an isolated proposition in physics, but always operate with or upon the group or system of propositions entailed by the given hypothesis.[3] When, for example, phlogiston was eliminated by Lavoisier's experimental results, what went with it was the general notion of chemical substances having negative weight.

With respect to operations on which esthetic judgments are based it is generally recognized that it is not the unique features of an individual operation or act of experiencing objects that is assertible, but only the relational features. "Look at this beautiful sunset" means to assert: "If you will place yourself in the same context of physical, physiological, and psychological relations as I am now in, you will experience what I call a beautiful object." The overt or observable features of such a complex situation are hardly understandable or distinguishable without some such relational analysis.

Relationality is common to both of the above types of situations and to the rules of syntax. De Morgan has shown how the general form of the rules of the syllogism is expressible in the more general logic of relations as follows: "If α is the probability that X has the relation of L to Y, and β the probability that Y has the relation of M to Z, then $\alpha\beta$ is the probability that X has the relation of L of M to Z."[4] It is also De Morgan who showed the importance of the rule $(pvq)' = p' \,.\, q'$ which underlies the work of Nicod, Sheffer, and Wittgenstein, culminating in the latter's proof of the tautologous character of all the rules of syntactical or logical operations. Despite the mystic outcome of Wittgenstein's work, it does not succeed in isolating the logic of language from the structure of nature. The tautologous character of logical operations does not imply the autonomy or isolated self-sufficiency of logic. How can tautologous

[3] "Chercher à séparer chacune des hypothèses de la Physique théorique des autres suppositions sur lesquelles repose cette science, afin de la soumettre isolément au contrôle de l'observation, c'est poursuivre une chimère; car la réalisation et l'interprétation de n'importe quelle expérience de Physique impliquent adhésion à tout un ensemble de propositions théoriques." P. Duhem, *La Théorie Physique*, p. 303 (second edition).

[4] A. De Morgan, *Cambridge Philosophical Transactions*, X, 339.

rules furnish us with different types of relations? De Morgan's answer is significant:

"For the first time in the history of knowledge the notions of relation and relation of relation are symbolized. And here again is seen the scale of gradation of forms, the manner in which what is difference of form at one step is difference of matter at the next."[5]

This ascent or elaboration of relational forms is possible only because relations are more general than the domain of actual operations and constitute the framework of all verifiability, communicable experience and discourse.

The neo-positivist's attempt to unify the sciences by reducing all scientific propositions to the language of physics presupposes that spatio-temporal relations exhaust the domain of all verifiable relations. Against this metaphysical claim is to be urged that there are whole realms of arithmetical or algebraic relations which have no spatio-temporal reference. The fact that we may use the square root of minus one to represent such spatio-temporal magnitudes as the magnetic field around a wire does not mean that the square root of minus one is a spatio-temporal relation or operation. It is denotable by the operation of solving the equation $x^2 + 1 = 0$. If we can find some physical magnitude for x to stand for, we have the application and an interpretation of an imaginary number. But the relation between x and the physical magnitude denoted by x is different from the relation of x to the equation or propositional function $x^2 + 1 = 0$. Hence the operations used in determining the arithmetical value of x are not the same as those used in the interpretation of x as a physical relation. There is a one-many relationship between the relational structure of any proposition and its physical interpretations. The relational form of propositions validates other propositions which illustrate that form. This logical fact presupposes the metaphysical fact that there are sufficiently stable forms to existence which can recur in different spaces and times so that similar groups of operations may yield identical genuine-object propositions.

If the meter-stick in Paris had not at least the stability of the phonetic or graphic representations of our perceptions of length, there would be no scientific use in adopting it as the conventional unit of length. The adoption of physical standards of measurement is not purely conventional, but semi-conventional. By a convention we mean a many-one relation between symbols and their logical reference. By a semi-convention I mean that the many referred to are limited and not indefinite, because of the restriction that symbols must have something formal in common with the thing or prop-

[5] *Ibid.*, p. 358.

erty symbolized. This "something formal" is the semiotic relation of denotation. It involves at least three terms: (1) a sign, (2) an object or proposition signified, (3) minds who are agreed upon the use of the sign.

Zuordnungsdefinitionen, as Reichenbach calls the elementary definitions of physics, are always semi-conventional. For it is not enough to show the technical possibility of making the arbitrarily agreed upon meter-stick in Paris coincide with physical lengths called meters elsewhere. Coincidence is as likely to error as many other sorts of perception. If correspondence by coincidence always gave truth in scientific measurement we should never have errors of observation. There must be, beside the technical possibility of perceptual coincidence in the definition of metrical units, rigid bodies, etc., the logical possibility of correlating these definitions with the known properties of the physical world.

True propositions are the relations among those terms of the universe or nature signified by those who have chosen to interpret that universe by constant collaboration and reorientation of the operations performed in following the lead of the signs used. Whence the importance of a flexible, economical, and universal system of signs for the world of scientists. Whence the intimate relation of the rules of syntax to the truth about the world whether regarded in detailed parts by the special scientists or in larger wholes by the philosopher.

PHILIP PAUL WIENER.

COLLEGE OF THE CITY OF NEW YORK.

SOME SOURCES AND EARLY MEANINGS OF AMERICAN PRAGMATISM AS REFLECTED IN VOLUME V OF THE COLLECTED PAPERS OF CHARLES SANDERS PEIRCE [1]

WITH the publication of Volume V of the collected papers of Peirce [2] the student comes into possession of indispensable material for the study of the origins and early development of American pragmatism. Some of the material has hitherto indeed been available, but much of it is now published for the first time. Pragmatism as an American doctrine is a phenomenon of a single generation; and now its germ and much of its essential formulation are between the covers of a single volume.

[1] Read at the meeting of the Pacific Division of the American Philosophical Association, Berkeley, California, December, 1934.

[2] Collected Papers of Charles Sanders Peirce. Edited by Charles Hartshorne and Paul Weiss. Volume V: Pragmatism and Pragmaticism. Cambridge: Harvard University Press. 1934. xii + 455 pp.

"About half of the present volume," we are told by the editors, "consists of previously unpublished papers. Their significance lies in the light which they throw upon certain obscure aspects of pragmatism. For anyone other than Peirce himself, the attempt to summarize the gist of his pragmatic point of view will inevitably be difficult and perhaps impossible" (Vol. 5, § v). In spite of this very proper warning of the editors the attempt must be made to ferret out these "obscure aspects" and to see what light is thrown upon them by the new papers.[3]

Who has never heard of the Cambridge Metaphysical Club will find it here set down that

> It was in the earliest seventies that a knot of us young men in Old Cambridge, calling ourselves, half ironically, half defiantly, "The Metaphysical Club"—for agnosticism was then riding its high horse, and was frowning superbly upon all metaphysics—used to meet, sometimes in my study, sometimes in that of William James. It may be that some of our old-time confederates would to-day not care to have such wild-oat-sowings made public, though there was nothing but boiled oats, milk, and sugar in the mess. Mr. Justice Holmes, however, will not, I believe, take it ill that we are proud to remember his membership; nor will Joseph Warner, Esq. Nicholas St. John Green was one of the most interested fellows, a skillful lawyer and a learned one, a disciple of Jeremy Bentham. His extraordinary power of disrobing warm and breathing truth of the draperies of long worn formulas, was what attracted attention to him everywhere. In particular, he often urged the importance of applying Bain's definition of belief, as "that upon which a man is prepared to act." From this definition, pragmatism is scarce more than a corollary; so that I am disposed to think of him as the grandfather of pragmatism. Chauncy Wright, something of a philosophical celebrity in those days was never absent from our meetings. I was about to call him our corypheus; but he will better be described as our boxing-master whom we—I particularly—used to face to be severely pummelled. He had abandoned a former attachment to Hamiltonianism to take up with the doctrines of Mill, to which and to its cognate agnosticism he was trying to weld the really incongruous ideas of Darwin. John Fiske and, more rarely, Francis Ellingwood Abbott, were sometimes present, lending their countenances to the spirit of our endeavors, while holding aloof from any assent to their success. Wright, James, and I were men of science, rather scrutinizing the doctrines of the metaphysicians on their scientific side than regarding them as very momentous spiritually. The type of our thought was decidedly British. I alone of our number, had come upon the threshing-floor of philosophy through the doorway of Kant, and even my ideas were acquiring the English accent [Vol. 5, § 12].

[3] Though the editors have marked the distinction between the published and the hitherto unpublished material so that the careful reader can understand, they have nevertheless violated ordinary rules of logical division by publishing in Book III under the caption "Unpublished Papers" some old material (*Cf.* Vol. 5, § 565 ff). Their general policy of breaking up manuscripts in order to meet their hypothesis of relevancy now becomes especially annoying, for the reader must perforce have access to the remaining volumes of this edition, even to those yet unpublished, in order to piece together the author's deliberate exposition of pragmatism.

In this offhand and altogether delightful fashion Peirce manages to tell a great deal about the domestic household into which the surprised and surprising infant was born. He added some vague genealogical notes connecting the child on its paternal side with Aristotle, Spinoza, Locke, Berkeley, and Kant, desiring us to understand, however, that it inherited from these great persons their more respectable traits only. Thus does engaging humility find lodgment along with pompous vanity in the strange mind of C. S. Peirce. He then describes the steps by which the theory "that I had been urging all along under the name of pragmatism" was formulated into a paper which was later published in the *Popular Science Monthly* for January, 1878. This paper is the overt expression to which innumerable signboards now point as the canon of American pragmatism.

This famous essay, called *How to Make Our Ideas Clear,* has certainly been more often cited than understood. In it is the remarkable pragmatic formula which Peirce and his expositors have so often quoted. "Consider what effects," so runs the dictum, "that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object" (Vol. 5, § 402). Aside from its linguistic clumsiness, the meaning of this strange ritual is by no means self-evident. It would hardly be taken as a good example of the clarity which the author was recommending. In a footnote added twenty-eight years later (1906) Peirce comments on his repetition of the word "conceive." He says that he repeated this word for two purposes: "One was to show that I was speaking of meaning in no other sense than that of *intellectual purport.* The other was to avoid all danger of being understood as attempting to explain a concept by percepts, images, schemata, or by anything but concepts." (Note 3. The notes added by Peirce in later life to his already published work are in many instances more significant than the original exposition of his thought. This volume is rich in such notes.)

Some light may perhaps be thrown upon the canon of pragmatism if we examine the larger context of the author's thought within which the famous essay itself appeared. Ten years before its publication Peirce was writing a series of papers for the *Journal of Speculative Philosophy.* The burden of what he had to say was that there is an indefensible fiction in the common assumption of modern thought that philosophy begins in universal doubt. "We can not begin with complete doubt," he wrote in 1868. "We must begin with all the prejudices which we actually have when we enter upon the study of philosophy. . . . Let us not pretend to doubt in

philosophy what we do not doubt in our hearts" (Vol. 5, § 265). He was protesting then as he did throughout the remainder of his life against formalism in philosophy. He argued that the real question for the philosophic mind is, What method is to be employed for the resolution of actual *de facto* doubts?

A consideration of the context of pragmatism in the mind of Peirce shows that he was challenging the norm of clearness as formulated in the classic phrase about "clear and distinct ideas." He says, in effect, that an idea can not be made clear by abstract definitions or by any other similar verbal process. The idea which a man has must enter into a transaction in such a manner as to become directive and it is by such a process alone that clarification is to be secured. So far his conception of clearness is clear. He expressed himself on this topic even more effectively, however, in a paper of 1877 entitled, *The Fixation of Relief*. In that essay he characterized three traditional methods of fixing belief and argued that they must give place to a fourth, or scientific method. The first two traditional methods he called (1) the method of tenacity, in which private intuition and assurance is the norm, and (2) the method of authority, in which the weight of institutional dogma is set to resist the invasion of disturbing novelty. The common weakness which he discovered in these two methods is especially interesting. The method of tenacity, he said, "will be unable to hold its ground *in practice*. The social impulse is against it . . . so that the problem becomes how to fix belief, not in the individual merely, but in the community" (Vol. 5, § 378, *my italics*). Though the method of authority can give a slightly better account of itself than can the method of tenacity, in the end it shows the same defect for it comes into conflict with beliefs in a larger frame of reference and thus fails *in practice*. "The willful adherence to a belief, and the arbitrary forcing of it upon others," he concluded, "must, therefore, both be given up" (Vol. 5, § 382). The third method of fixing belief considered by Peirce is the method of dialectic. Though it also must be superseded he dismisses it only after a sympathetic hearing. He saw that dialectic has caught the spirit of science if not its precise methodology, for it weighs one belief against another and is sensitive to the claims of sweet reasonableness. It does not shut itself in but looks out for other facts and points of view. "It makes of inquiry," he wrote, "something similar to the development of taste" (Vol. 5, § 383). "This method resembles that by which conceptions of art have been brought to maturity" (Vol. 5, § 382).

It is the scientific method, however, which is the only one suited to the task of fixing belief. "Its fundamental hypothesis . . . is this: There are Real things, whose characters are entirely independ-

ent of our opinions about them" (Vol. 5, § 384). In the investigation of these hypothetical real things it is the method of deliberate open-mindedness which if acted upon will carry us to the goal of knowledge. Here was an admirably clear statement of what Peirce was later to call the pragmatic method.

Tradition and the deliberate statement of the author to the contrary notwithstanding, the sources of Peircean pragmatism lie in the decade before the ill-fated essay of 1878. The lack of clarity which inheres in the complicated formula of that essay is due to the intrusion of the naked phrase "practical bearings." The phrase proved to be an unfortunate one and the author had to explain in vain that pragmatism was not the theory that action is the end to which thinking is a means. A study of his earlier papers shows that the phrase does not have its usual connotation. It must be understood in the light of his profound distrust of the Cartesian method. According to Peirce conception is the norm of scientific procedure and the end sought is the resolution of genuine doubt by an examination of "real things." A method or a concept has "practical bearing" for him when and only when it is productive of evidence which serves to resolve a *de facto* doubt about the nature of reality.

There is another obscure dictum concerning pragmatism which is often too lightly accepted, i.e., that pragmatism is not a metaphysic. Writing about 1902, Peirce himself declared that "*pragmatism* is not a *Weltanschauung* but is a method of reflexion having for its purpose to render ideas clear" (Vol. 5, § 13, n). He was led to this denial, however, by the unauthorized metaphysical inferences then being drawn by others from his statement of the pragmatic theory. It is true that he conceived pragmatism as a methodology, but it is also true that it was in origin and intention a metaphysical theory. As a method it would be incoherent and unintelligible without the expressed conviction of the author that "There are Real things whose characters are entirely independent of our opinions about them" (Vol. 5, § 384). This doctrine, tenaciously held by Peirce throughout his life, is the thread of objective realism which knits together his vast speculative fabric. It is this initial hypothesis, for example, which produced and makes intelligible his three major categories—firstness, secondness, and thirdness. Firstness connotes the given particular; secondness, the meaningless web of the given; thirdness, the meaningful interpretation of the given and the purposive creation of specific order systems. Pragmatism is indeed the method of thirdness, but it would lose all footing if deprived of its metaphysical foundation in firstness and secondness. If strictly and narrowly taken it is true that pragmatism is not a metaphysic, but it is not to be taken to mean that for Peirce it was an unsupported

methodology. On the contrary, it is his *metaphysical* pragmatism which, seen in its colossal proportions, overshadows every other feature of his thought.

Still another question about early pragmatism finds a profitable answer in Volume V. To what extent does pragmatism involve psychology? A re-reading of the early essays of Peirce leads but to one answer, i.e., to a very great extent. The prevalent psychology of his day was the analytic psychology of the Wundtian school. With this Peirce could make no peace. But if anything can be safely said of early pragmatism, as of late, it is that it is a doctrine of the functional character of thinking. In this matter Peirce was nearer to James than he supposed and it is largely because James caught the essence of this aspect of the doctrine that he came to be considered the prophet of pragmatism. (Cf. Maurice Baum, "The Development of James's Pragmatism Prior to 1879," this JOURNAL, Vol. XXX (1932), pp. 43–51. If what Baum says is true James had formulated his voluntaristic pragmatism as early as 1878 and it was even then distinctly unlike the theory of Peirce.)

The content of Peirce's early essays is plain testimony that his pragmatism was rooted in the phenomenology of conscious mind. His later work but confirmed and extended this early postulate. He strongly commended Hegel for beginning with the *Phänomenologie des Geistes* and declared his intention of doing likewise, except that he would do better (Vol. 5, § 37). His illustrations of firstness are often rather naïve examples of psychic feeling, i.e., of unmediated givenness. In this there is an interesting parallel to the early chapters of Bradley's *Logic*.

There were two purposes struggling in Peirce's mind for supremacy, (1) to exhibit logic as continuous with the phenomena of the psyche and (2) to treat it as the structural principle of an objective, natural process which the psyche directly faces. In a Darwinian epoch the psyche could hardly have been unbiological. Guided by Chauncy Wright, Peirce felt the full impact of organic evolution upon theories of mind. He saw very clearly that the mind must turn out to be some kind of a process functioning within the context of the natural world though in the end he discovered that the mind process is more like a logical than it is like a biological function. It is the process for the production of meanings and the fixation of belief. As such it is the foundation of action systems and therefore creative of order.

This brings forward the very tangled problem, the most obscure in the Peircean list, of the relation of logic and ethics and of both of them to esthetics. The reader can be in no doubt that Peirce held esthetics to be the foundation of the whole structure of normative

science. Beyond this point, however, there is a twilight zone in which statements, in themselves simple enough, take strange shapes in the atmosphere of nebulous theory (Vol. 5, § 36, 111, 533, 535; also Vol. 1, § 611–615). Esthetic judgment provides the norm of distinction between "objects considered simply in their presentation.") "It is evidently the basic normative science upon which as a foundation, the doctrine of ethics must be reared to be surmounted in its turn by the doctrine of logic" (Vol. 5, § 36). He believed that logical and ethical maxims could be instrumental in the usual sense, but insisted upon asking the question—Instrumental to what? It is in trying to answer this question that he appeals to esthetics. The primary normative judgment is a natural preference or taste which is esthetically immediate, undebatable, and naturally imperative. "There is a preference," he wrote, "which depends upon the *significance* of impulses, whatever that may mean. It supposes that there is some ideal state of things which, regardless of how it should be brought about and independently of any ulterior reason whatsoever, is held to be good or fine" (*loc. cit.*).

A study of his contention that esthetics is the foundation of normative science leads unmistakably to the conclusion that whoever is to understand the axiological doctrine of Peirce would do well to sit up nights with Kant's third Critique. Without being indebted to Kant for any direct appropriation Peirce found in the critical philosophy the sustenance of his growing mind. In his theory of esthetics he rises distinctly above the commonplace doctrine of instrumental pragmatism as popularly expounded. He postulates a categorical imperative more subtle that Kant's. It is not the imperative of the willed act, but of the realistic mathematico-logical fact. The imperative is that of man's natural existence in a world with which his continuity is revealed by the "would be" of a mathematical order and the *habit* of systems. Peirce adds many a fine thread of patient thinking to bind the region of the first and second Kantian Critiques more closely together and particularly in his doctrine of "signs" he has partly spanned the breach which Kant has left between mind and the rest of reality. The esthetic norm is really the development of reason and the evolution of systems. In his own words, "The creation of the universe, which did not take place in a certain busy week in the year 4004 B.C., but is going on to-day and never will be done, is this very development of reason" (Vol. 1, § 615).

H. G. Townsend.

University of Oregon.

BOOK REVIEWS

Platon: Die Philosophie des heroischen Vorbildes. JOACHIM BANNES. Berlin and Leipzig: Walter de Gruyter & Co. 1935. xi + 145 pp. 5.60 M.

The last fifty pages of the volume are devoted to notes and index; and the main body of the work, covering about ninety-five pages, is divided into six chapters, entitled respectively The Method, The Personality, The Doctrine, Soul and Body, Idea and Eros, *Republic* and *Laws,* and The Foundation of the "Reich." The use of this last term in a treatment of Platonic thought suggests that the author has the present situation in Germany in the back of his mind, and this suggestion is confirmed by many remarks in the book. His ultimate interest appears to be the significance of the Platonic-Socratic pattern of heroic personality for what he calls "the Hellenic-Christian-German world" (p. 96). The central theme of the work is that for Plato Socrates typified the isolation and seclusion of a free, heroic personality, by whom, however, the State should be saved, and that Plato's whole philosophy is characterized by this double aspect: on the one hand, seclusion to the point of fleeing from the world, spirituality to the point of seeming to hate the body, estrangement of the Idea to the point of most cheerless abstraction; and on the other hand, the message of a new cosmic State with a glorification of the body under the all-pervasive efficiency of the Idea. The consideration of this theme, which is well worked out, should be of great interest to those of us who live in Hellenic-Christian-Anglo-Saxon democracies.

R. S.

Dynamique et métaphysique Leibniziennes. Suivi d'une note sur le principe de la moindre action chez Maupertuis. M. GUEROULT. (Publications de la Faculté des Lettres de l'Université de Strasbourg, Fasc. 68.) Paris: Les Belles Lettres. 1934. 240 pp. 30 fr.

In the case of Leibniz, perhaps more than any other modern great philosopher, the doctrine and the man that emerge from successive scholarly studies of his work seem each to have little in common with their scholarly predecessors. There have been many Leibnizes, each a metaphysician, but the metaphysics derives sometimes from pure dynamical conceptions, sometimes from logical, mathematical, religious, or political preoccupations. M. Gueroult protests against this tendency to unilinear interpretation as a distortion of the encyclopedic scope of Leibniz's philosophic efforts by which contradictions and confusions in his thought are emphasized more than

harmonies. Since this tendency has in recent times led to a dissociation of dynamics from metaphysics, his essay is directed to the restoration of that science to its place in the Leibnizian system. He has little difficulty in showing that to Leibniz's mind dynamics stood in need of principles derived from metaphysics, that indeed the concepts, force and mass, proceed from metaphysical considerations. But M. Gueroult finds an evolution in Leibniz's physical concepts and consequently in the metaphysical analyses by which he undertook to validate them. In the early treatises, the *Theoria motus abstracti,* dedicated to the Academy of Sciences in Paris, and the *Theoria motus concreti,* dedicated to the Royal Society in London, the intervention of metaphysics is to effect a resolution of the opposition between abstract physics and concrete physics by the introduction, through the wisdom of God, of such factors as mass, elasticity, weight, to modify the abstract laws stated in terms only of *conatus* and treated geometrically by *a priori* construction. According to Leibniz's later judgment this metaphysical intervention was necessitated by a fundamental fault in the physical theory, and he held that the judgment applied against the Cartesian physics as well, since it was guilty of the same fault. Leibniz's second formulation of dynamics was subsequent to his stay in Paris and his initiation into the mathematics of the day. After that study and meditation on the works of Galileo and Huyghens, Leibniz came to recognize the impossibility of treating the motions of bodies systematically in an abstract physics without recourse to higher principles. The new metaphysical principle which he enunciated was that the total effect is always equal to the full cause, and he undertook to develop demonstrations, both *a priori* and *a posteriori* of his new theory. In tracing the intricacies of these demonstrations M. Gueroult has the opportunity at once of setting forth the Leibnizian conception of physics in the frame of his philosophic analysis, of stating, with unusual clarity and accuracy as a consequence, the doctrines of *conatus, impetus,* and *vis viva,* and finally of indicating with precision the relations of Leibniz's theories with those of Galileo, Descartes, Hobbes, and Huyghens. In an appendix he proceeds to the later discussion of the principle of least action conducted by König and Maupertuis. M. Gueroult's essay makes the genuine contribution to the study of Leibniz of which he had indicated the need in his opening chapter, but more than that, by setting forth the theories and controversies which gathered about the beginnings of modern physics, he has recalled attention to philosophic discussions of problems which modern science is beginning to recognize as part of its heritage.

R. McK.

Der Psychologismus im englischen Empirismus. HANS PFEIL. (Forschungen zur neuren Philosophie und ihrer Geschichte. V.) Paderborn: Ferdinand Schöningh. 1934. 180 pp. 4.80 M.

Pfeil distinguishes five sorts of psychologism, and then proceeds to review the philosophical positions of Bacon, Locke, Berkeley, and Hume and to point out where in their positions one or another of the five sorts of psychologism is manifest. He makes many acute observations, and undoubtedly he has a strong case. To many readers he will yet fail to carry complete conviction. For though psychologism affects nearly every theme which the British "empiricists" handled, it is hardly to be called "jenen archimedischen Punkt, von dem aus die Welt des Empirismus aus den Angeln gehoben werden kann." Pfeil loses no chance to enforce his charge against the classical British writers and to adduce telling evidence to support his charge. But he has lost much else. British "empiricism" is more than an error to be refuted: it is a massive achievement within which a critic can distinguish much truth as well as much error. Pfeil's charge is sound enough; but it requires us to restate certain important matters rather than to regard the British authors as disposed of.

The five sorts of psychologism are the confusion (1) of what is thought with either the sense-content of ideas or the act of thinking, (2) of logic and epistemology with phases or applications of psychology, (3) of the laws of logic with descriptions of psychological processes, (4) of rules for the validity of ideas with psychogenetic formulae, and (5) of rational insight into validity of ideas with non-rational feelings. Bacon, it is pointed out, exhibited a latent tendency to the first, second, and fourth sorts of psychologism. Locke and Berkeley made this tendency explicit and controlling. Hume thought through the consequences of combining empiricism and psychologism; and while he succeeded in avoiding the fourth sort, he clearly sponsored the third and particularly the fifth sorts of psychologism.

Aside from the general criticism of Pfeil's work that was made above, one specific correction seems to be called for. Pfeil says that Hume treated "den Erfahrungsinhalt als Quelle der Erkenntnis" (p. 170); and he then charges Hume with contradiction in accepting certain and evident knowledge of what Hume called "relations of ideas." Hume followed Locke more closely than Pfeil recognizes in his conception of knowledge. Experience was not for Hume the source of knowledge. Experience was rather the sole source of the impressions and ideas which are the materials of knowledge. "All kinds of reasoning," Hume wrote (*Treatise,* Book I, Part III, section 2, second paragraph), "consist in nothing but a comparison

and a discovery of those relations, either constant or inconstant, which two or more objects bear to each other." And it is reason that seeks to make the comparison and to discover the relations. In such relations as "depend entirely on the ideas," reason is successful and certain and evident knowledge results. There is no contradiction here. In such relations, however, as "may be chang'd without any change in the ideas," reason always and completely fails and no knowledge results. For such relations we can have only beliefs that depend on imagination. Yet even here reason is not utterly useless. For we may draw up rules to check up on our beliefs (cf. *Treatise,* Book I, Part III, section 15) and may thus be enabled to regard some beliefs as better founded than others. Hume's error was not in contradicting his own premises. It was rather in so separating reason from other activities that noetic processes had to be carried on apart from experimentation and the affairs of every-day living. And this error goes back through Locke's *Essay* to Descartes' rationalism. That is, Hume was less completely guilty of psychologism than Pfeil supposes.

S. P. L.

College of the Pacific Publications in Philosophy, Volume III. Edited by PAUL ARTHUR SCHILPP. Stockton, California: College of the Pacific. 1934. 153 pp.

This is the third and final volume of collected "semi-popular philosophical discourses" delivered under the auspices of the Pacific Philosophy Club, with an added paper, "A Preface to Ethics" by Professor H. W. Stuart, read originally before the Pacific Division of the American Philosophical Association. The first four lectures, occupying about three-fifths of the space, deal with recent operations on the scientific front. Professor V. F. Lenzen ably reviews "The Philosophical Significance of Contemporary Physics" with no comforting words for those who see in the new indeterminism a basis for a satisfactory doctrine of free will; while Professor H. C. Brown in his essay on "Scientific Thought and Reality" depicts the scientist as a cosmic map-maker in his selections of symbolized objects and relations: maps for different purposes vary, and none of them should be expected to look just like the country to which they may nevertheless be excellent guides. Of the five lectures devoted to questions of value, the one by Professor W. R. Dennes, entitled "Preface to an Empiricist Philosophy of Religion" deserves especial praise for the clearness and incisiveness of its argument in a field where those qualities are all too rare. He concludes that "religious experience and theological doctrine add nothing to the meaning or truth of any statement or to the validity of any rule of conduct

. . . not finally traceable to . . . observations and loves and preferences which remain what they are, and mean all that they do, whether or not they are referred to, or taken as evidence of, deity." Professor F. C. S. Schiller records some personal reminiscences of William James, "the Maker of Pragmatism," in another of the lectures; and Professor J. H. Tufts discusses "Equality and Inequality as American Values" with almost too much balance in his weighing of the present prospects of the two tendencies.

H. A. L.

Aesthetische Streitfragen. K. S. LAURILA. Helsinki: Akateeminen Kirjakauppa. 1934. Pp. 424. 12 M.

This volume consists of eight essays dealing with the following problems: esthetic feelings, the source or sources of the esthetic impression (*Eindruck*), the relation of the esthetic impression to pleasure and pain, the object and task of esthetics, associationism, poetic language, form and content, and specific problems such as those of beauty and ugliness, the sublime, etc. Since my general estimate of the book is unfavorable let me, in justice to the author, quote two sentences from Max Dessoir's commendatory foreword. "Seine Erörterungen sind immer sorgsam, grenzen die Probleme nach allen Seiten hin ab, werden unparteiisch, sauber, in echt wissenschaftlichem Geiste geführt. . . . Ich glaube mich nicht zu irren, wenn ich sage, dasz es wenige Arbeiten auf unserm Gebiete gibt, in denen die Grundfragen mit derselben Gewissenhaftigkeit and Klarheit behandelt werden wie in den hier Gesammelten Aufsätzen Laurilas." I found the author's analyses, on the other hand, often repetitious and tediously obvious, sometimes completely perverse, and on the whole lacking in subtlety and penetration. The essay on "The Dispute in Esthetics regarding Form and Content" may be taken as a fair sample. The first seventy pages are devoted to an historical sketch in which the author considers whether Plato, Aristotle, Plotinus, Kant, Schiller, and others should be classified as formalists or anti-formalists. The whole analysis is confused because the author does not define his key terms; indeed, he discovers that these philosophers can not be fitted into one category or the other because the problem of form vs. content did not achieve clear definition until the middle of the nineteenth century. The historical excursus is thus quite beside the point. Hegelian, Herbartian, and other solutions of the problem are next, and most inadequately, described and criticized. All these philosophers failed to analyze the esthetic *impression* instead of the esthetic *object*. The former, when scrutinized, is found to have three factors, (1) sensations, (2) their meanings, i.e., what they represent, and (3) additional associated

meanings. This provides the clue to the solution of the form-content problem. The sensuous surface of any object of esthetic contemplation is its form; its non-sensuous, spiritual meaning is its content (p. 317). This leads to the conclusion that poetry is the finest of the arts because it can be richest in content. "In a literary work of art the content is almost everything, the form almost nothing" (p. 319). Songs and operas are rated proportionately high because of the sentiments which the words express, although the author admits that "pure" music may also, somehow, be spiritually significant. In short, though form is recognized to have some esthetic value, content, as defined above, is all-important, especially in the higher arts.

The most I can say for the book is that some of its theses are sound (its criticism, for example, of hedonism and associationism), that the problems it deals with are important, and that the philosophical positions it discusses are worth reading about. The author leans heavily on Johannes Volkelt's *System der Aesthetik,* though he criticizes some of the latter's views in the concluding essay.

T. M. G.

Grundzüge zur Rechtsmetaphysik. WALTER EHRLICH. Halle: Max Niemeyer. 1935. 51 pp. 1.60 M.

In this lecture the distinction, developed by the author in a previous work, between intentional and significant existence, between the realm of consciously oriented interests and the realm of the normative personality, between the positive organization of law or morals and the transcendental scale of values, is applied to the philosophy of right. In contrast to both the Kantian and the phenomenological formalisms, which would apply to dreams and daemons as well as to normal human experience, Ehrlich attempts, on the basis of the significant norms of human waking experience, to formulate a transcendental deduction of the material order of right.

Accordingly, he deduces four material conditions of right from his doctrine of the normative essence of personality; (1) right is essentially human; (2) the human person is the end of right in itself; (3) methodologically the human personality and the public community must be regarded as of equal value until their several claims to priority can be clearly determined; (4) the state has the right to prescribe the direction, but not the specific content of human conduct. The polarity between personality and community, which defines the "transcendental location" of right, thus generates a rightness of procedure (*Rechtsweg*) that is *sui generis* and can not be identified with reason, utility, or any other norm. This transcendental rightness of procedure is prior to and normative to the moral,

legal, and political procedures in the evaluation of conflicting interests. For human institutions, on the basis of this metaphysics, are not mere organizations of interests (*Zweckverbände*), but embodiments of historical significance (*Bedeutsamkeiten*). All legalistic schemes, as for example civil equality, are to be regarded as methodological devices for proceeding tentatively until the real scale of values can be determined. Right must be based on a hierarchical, not an equalitarian, ontology.

It is impossible in English to ring the changes on *Sinn, Sinne, Besinnen, Gesinnung,* of which the author makes clever use. Even he, however, seems to realize (p. 43) that though in a sense the sense of right is prior to its legal forms, even this normative sense (*Gesinnung*) is in need of more than its own transcendental discipline, if it is to function normatively in practise. In fact, it is precisely this sharp contrast, reiterated by the author, between political right and human right that encourages both to be self-righteous.

H. W. S.

Modern Trends in World-Religions. Edited by A. EUSTACE HAYDON. (Haskell Foundation Institute.) Chicago: University of Chicago Press. 1934. xiv + 255 pp. $2.50.

This volume is composed of four series of lectures by sixteen scholars, each series discussing a different aspect of the modern situation in each of six world-religions (Islam, Judaism, Christianity, Buddhism, Confucianism, and Hinduism). In the first series these religions are discussed in relation to science; in the second, to social problems; in the third, to inter-cultural contacts; in the fourth, to the outlook and tasks for the future. Thus the volume gives a suggestive and diversified description of the ways in which religious traditions and institutions are adapting themselves to modern culture.

For philosophy the most noteworthy chapters are the following: E. S. Ames' account of Christian modernism; W. E. Hocking's attempt to reconcile cultural and scientific relativity with the natural need for an absolute faith and a supernatural object; J. B. Pratt's analysis of the reasons for the failure of modern science and philosophy to have much significance for Buddhism; S. L. Joshi's estimate of the influence of Western culture on Hinduism; and L. Hodous's and Hu Shih's emphasis on the naturalistic strains in Confucian ethics.

Professor Ames states the general theme of the lectures very well when he writes: "The scientific view of religion already justifies the common character of the various faiths, as springing from the same deep impulses of human nature but flowing in different cultures.

. . . So these great faiths, when scientifically understood, not only become intelligible to one another but become coöperative forces in the spiritual life of mankind'' (p. 33). The volume also illustrates the fact that this faith of those who approach religion scientifically is still largely a faith, a neo-deism, as it were, and that in actual fact the various religions here discussed seem to be each engrossed in its special tasks within its particular culture. ''World-religions'' like ''world-powers'' are by no means as uniform as are the scientific, economic, and military aspects of modern culture, and it is chiefly because of their attempts to adjust themselves to these relatively universal aspects, that religions are achieving a tolerable degree of mutual understanding.

H. W. S.

OTHER NEW BOOKS AND JOURNALS

Gardner, Percy W.: A Lawyer's Philosophy of Life. Boston: The Beacon Press, Inc. 1935. 49 pp. $1.00.

Homenaje a Enrique Jose Varona en el cincuentenario de su primer curso de filosofía (1880–1930). Miscelánea de estudios literarios, históricos y filosóficos. La Habana: Publicaciones de la Secretaría de Educación, Dirección de Cultura. 1935. 591 pp. (The Appendix contains a comprehensive account (pp. 521–579) of Varona's career and philosophy by Medardo Vitier. A bibliography of Varona's writings (pp. 495–520) has been compiled by Carlos M. Trelles. There are other articles on special aspects of Varona's thought, as well as on various aspects of Cuban culture.)

The Philosophical Review. Vol. XLIV, 2. Society and the Subjective Mind: *J. D. Stoops.* The Philosopher and His Words: *Warner Fite.* The Institution as Agency of Stability and Readjustment in Ethics: *James H. Tufts.* Proceedings of the American Philosophical Association. Frames of Reference in Philosophy: *W. P. Warren.* Discussion—The Conception of Law in Statistics and Mechanics: *C. T. Ruddick.*

Die Tatwelt. 11 Jahrgang, Heft 1. Aus den Hauptproblemen der Religionsphilosophie: *Rudolf Eucken.* Überblick zu dem Aufsats: Méditations sur l'apparence von Jacques Chevalier. Méditations sur l'apparence: *Jacques Chevalier.* Die Grundlagen der Staatengemeinschaft und das Lebensrecht der Nation: *Ulrich Scheuner.*

Revue Néoscolastique de Philosophie. Tome 38, No. 45. La critique de l'intelligible et de sa valeur réelle: *L. Noël.* Les sources de l'idéalisme: *R. Jolivet.* Héraclite et les cultes enthousiastes: *F.*

Grégoire. Les manuscrits du cours inédit d'Albert le Grand sur la Morale à Nicomaque, recueilli et rédigé par Saint Thomas d'Aquin: *G. Meersseman.*

RIVISTA DI FILOSOFIA NEO-SCOLASTICA. Anno XXVII, Fasc. I. Martino Heidegger. Linee fondamentali della sua filosofia: *C. Mazzantini.* L'analogia di attribuzione e la conoscenza della natura di Dio: *P. V. Brusotti.* Note e Discussioni—Storia, filosofia della storia, scienza della storia: *C. Ottaviano.* Il "Pensiero," secondo Maurizio Blondel: *C. Mazzantini.*

REVUE DE PHILOSOPHIE. 34e Année, No. 5–6. Le R. P. E. Peillaube (a series of articles about the founder of the *Revue de Philosophie*). L'humilité, la raison, la foi selon Pascal: *G. Desgrippes.* Faut-il reviser les jugements des thomistes concernant la doctrine de Scot?: *F. X. Maquart.* La philosophie pratique de Renouvier: *H. Dehove.*

SCIENTIA. Vol. LVII, N. CCLXXV–3. Quelques remarques au sujet des bases de la connaissance scientifique: *E. Schrödinger.* Science et philosophie après le Concile de Trente: *H. Hauser.* Aspetti attuali della Fisica nucleare: *E. Amaldi.* Neue Probleme der Enzymchemie: *R. Willstätter.* Remembering: *F. C. Bartlett.*

NOTES AND NEWS

A new quarterly review has appeared under the name of *Wissenschaft und Weisheit.* It is published by the German Franciscans, its editor being B. Kühlen (München-Gladbach, Germany). The price is 6.50 marks. Its aim appears to be primarily neither purely historical nor apologetic, but to publish Franciscan contributions to contemporary philosophy and science.

The *Chronicon Spinozanum,* published by the *Societas Spinozana,* announces that the death of its director, Carl Gebhardt, has created serious difficulties both financial and administrative, and appeals to members and friends of the Society for assistance at this critical juncture. The editing of the *Chronicon* has been assigned to the French branch of the Society (address: R.-G. Lacombe, 10 rue de Windsor, Neuilly-sur-Seine, France).